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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/665,498 | 09/22/2003 | Chan-Tung Chen | 3624-0127P | 6843 |
| 2292 | 7590 | 06/28/2005 | EXAMINER | |
| BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | | HUNTER, ALVIN A |
| ART UNIT | | PAPER NUMBER | | |
| | | 3711 | | |

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

S/N

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/665,498 | CHEN ET AL. | |
| | Examiner | Art Unit | |
| | Alvin A. Hunter | 3711 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 April 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4,6 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4,6 and 10-17 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper.No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 17, broadens the scope of the claim. Resin may be any type of resin other than photocuring resin based on claim 17 and is, therefore, rejected.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 10, 12, 13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosmatka (USPN 6364789) in view of Chen (USPN 5403007) further in view of Suzuki et al. (USPN 4831063).

Regarding claims 1 and 17, Kosmatka discloses a golf club head comprising a golf club head body including a recession in a side thereof wherein the recession

includes a shoulder **56** on an inner peripheral edge, at least one ring **30** mounted on the shoulder of the golf club head body, and a striking plate **32** mounted in the recession of the golf club head body so that the ring is sandwiched in-between the striking plate and the shoulder of the golf club head body wherein the ring supports a rear side of the striking plate (See Figures 3, 6, 8, and 9). Kosmatka inherently has a gap formed between the striking plate and the shoulder of the golf club head body due to the attachment being facilitated by an adhesive (See Paragraph bridging Columns 4 and 5). Kosmatka also notes that the adhesive also serves to be a dampener. Kosmatka does not disclose the type of adhesive. Chen discloses a club head having a gap between the face plate and the shoulder of the club head wherein an epoxy resin fills the gap to provide an attaching means for the face plate to the club head (See Abstract and Summary of the invention, and Column 2, lines 24 through 32). One having ordinary skill in the art would have found it obvious to use a resin to fill the gap, as taught by Chen, in order to facilitate attachment of the face plate to the club head body. Suzuki et al. discloses a photocurable epoxy resin wherein the resin may be used as an adhesive (See Background of the Invention and Summary of the Invention). One having ordinary skill in the art would have found it obvious to use a photocurable resin as an adhesive in order to improve bond and speed of assembly.

Regarding claim 2, Kosmatka discloses the ring made of a material having a Young's Modulus smaller than 1.5×10^{11} Pa, or 2.2×10^7 psi (See Column 5, lines 43 through 64).

Regarding claim 3, Kosmatka discloses the ring made of titanium, brass, aluminum, magnesium, or wood (See Column 5, lines 43 through 64).

Regarding claim 10, Suzuki et al. discloses the photocurable resin hardening under radiation with one of visible lights and UV rays (See Column 19, lines 30 through 62).

Regarding claim 12, Kosmatka discloses the striking plate having a Young's Modulus of 2×10^{11} Pa, or 2.9×10^7 psi (See Column 5, lines 33 through 64).

Regarding claim 13, Kosmatka discloses the striking plate made of stainless steel (See Column 5, lines 3 trough 64).

Claims 4, 6, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art applied to claim 1 above in view of Takeda (USPN 6491593).

Regarding claim 4, the art applied to claim 1 above does not disclose a flange on the outer peripheral of the recession. Takeda discloses the recession having a flange on the outer peripheral edge and a striking plate including a stepped portion wherein the flange fills the stepped portion of the striking face. It is evident from Takeda that the flange allows the striking plate to be secured to and flush with the front surface of the club head. One having ordinary skill in the art would have found it obvious to have the flange one the outer periphery of the recession, as taught by Takeda, in order to secure the striking plate to the club head body and to make a flush front surface for the club head.

Regarding claim 6, Takesa et al. discloses an annular groove having a plurality of notches in at least one annularly extending corner portion (See Figure 7). Applicant

does not disclose why it is critical to press fit the ring to reduce the contact area; therefore, one having ordinary skill in the art would have sought the method of reducing the contact area to be an obvious matter of design choice. The ring itself reduces the contact area between the striking plate and shoulder, therefore, it is submitted that the notches are not necessary in order to attain the invention so long as the contact area between the striking plate and shoulder are reduced.

Regarding claims 14 and 15, the art applied to claim 1 above does not disclose the material for which the body is made. Takeda discloses a club head having a stainless steel body which inherently has a Young's modulus of greater than 2×10^7 psi (See Column 3, lines 8 through 21). Though not disclosed by Takeda, stainless steel is a material commonly used within the art for fabricating club heads because it is easily accessible and one having ordinary skill in the art would have found it obvious to have the head body constructed of stainless steel because of such reason.

Regarding claim 16, The art applied to claim 1 above does not disclose having an annular groove within the shoulder. Takeda discloses a club head having a recession in which includes a shoulder on the inner periphery wherein the annular groove receives a ring element (See Figure 6 and Column 4, lines 60 through 67). One having ordinary skill in the art would have found it obvious to have the ring rest in an annular groove within the shoulder, as taught by Takeda, in order to improved the bearing strength of the club head at the time of striking a ball.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kosmatka (USPN 6364789) in view of Chen (USPN 5403007).

Kosmatka discloses a golf club head comprising a golf club head body including a recession in a side thereof wherein the recession includes a shoulder **56** on an inner peripheral edge, at least one ring **30** mounted on the shoulder of the golf club head body, and a striking plate **32** mounted in the recession of the golf club head body so that the ring is sandwiched in-between the striking plate and the shoulder of the golf club head body wherein the ring supports a rear side of the striking plate (See Figures 3, 6, 8, and 9). Kosmatka inherently has a gap formed between the striking plate and the shoulder of the golf club head body due to the attachment being facilitated by an adhesive (See Paragraph bridging Columns 4 and 5). Kosmatka also notes that the adhesive also serves to be a dampener. Kosmatka does not disclose the type of adhesive. Chen discloses a club head having a gap between the face plate and the shoulder of the club head wherein a resin fills the gap to provide an attaching means for the face plate to the club head (See Abstract and Summary of the invention). One having ordinary skill in the art would have found it obvious to use a resin to fill the gap, as taught by Chen, in order to facilitate attachment of the face plate to the club head body.

Response to Arguments

Applicant's arguments with respect to claims 1-4, 6, and 10-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

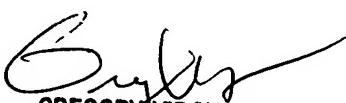
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is (571) 272-

4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Vidovich, can be reached on 571-272-4415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAH
Alvin A. Hunter, Jr.



GREGORY VIDOVICH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700